

REMARKS

In the office action, the Examiner (1) objected to the drawings, (2) objected to the specification for informalities, (3) objected to the claims for informalities, (4) rejected claims 20 and 25 under 35 U.S.C. § 112, first paragraph, and (5) rejected Claims 1-19 and 27-32 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,271,798 issued to Sandhu et al. ("Sandhu"). Reconsideration and allowance of the application, as amended, are requested.

I. Drawing Objections

The Examiner objected to the drawings, stating that certain claim limitations are not shown in the drawings. With respect to Claims 1, 8, 13 and 17, the Examiner refers to claim language relating to locally applying an etchant or selectively directing an etchant. Applicant maintains the position that these limitations are shown in the drawings, and that one skilled in the art would understand how the claim language relates to the drawings, as shown in FIGURE 2. The specification on page 8, lines 2-3, also states, for example, that "The localized etching is preferably performed by spraying wet etchant over the alignment marks, e.g., in zones indicated in phantom by reference numeral 108."

With respect to Claim 27, the Examiner states that the limitations of spraying a wet etchant and rinsing a residual etchant are not shown in the drawings. Again, Applicant maintains that the claimed features are adequately shown in FIGURES 2 and 3 with respect to the zones 108 and 112, which are shown in phantom and indicate the spraying of wet etchant and rinsing of residual etchant.

In an effort to advance prosecution of the present application, however, Applicant has provided an additional drawing, FIGURE 4, to illustrate the claimed features requested by the Examiner.

Withdrawal of this objection is therefore respectfully requested.

II. Objections to Specification

The Examiner objected to the specification for failing to provide proper antecedent basis for the claimed subject matter. The Examiner specifically indicates that there is no antecedent basis for the structures in the higher resolution region.

Applicant respectfully disagrees with the Office Action. Specifically, the specification defines “high resolution area” as an area containing high resolution or fine features or structures. See, e.g., page 8, lines 5-9. The specification also indicates that the central active area contains the display array components such as micropoints. Page 7, lines 3-5. Accordingly, one of ordinary skill would understand what structures are contained the high resolution area.

Withdrawal of this rejection is respectfully requested.

III. Objections to Claims

The Examiner objected to Claim 17 because part of the claim recites the term “cathode” when it appears that reference is being made to the anode.

Applicant has amended claim 17 to properly refer to the anode. Accordingly, withdrawal of this objection is requested.

IV. § 112 Rejections

The Office Action rejected claims 20-26 as reciting subject matter that was not described in the specification. More particularly, the Examiner states that claims 20 and 25 recite the limitation “forming alignment marks on the peripheral area of the substrate,” and that the specification does not indicate whether they are formed by etching, deposition, etc. The Examiner questioned how locally applying a wet etch will remove alignment marks without permanently damaging the substrate. As indicated in the specification, alignment marks are structures on FED substrates that are used, e.g., by steppers to precisely align different masks used in sequential photolithographic steps. (page 7, lines 11-13). Processes for forming such

alignment marks are well known in the art. The present application is directed to methods of clearing the alignment marks of material deposited thereon, not to removing the alignment marks themselves. Applicant submits that the specification should be interpreted in light of someone skilled in the art. As such, it should be clear how to form such alignment marks. A skilled artisan would also appreciate the fact the present application deals with clearing the alignment marks, and not the formation thereof. Accordingly, a skilled artisan would be fully capable of practicing the invention as claimed.

Applicant therefore respectfully submits that claims 20-26 fully satisfy the requirements of 35 U.S.C. § 112, first paragraph. Withdrawal of this rejection is respectfully requested.

V. § 103(a) Rejections

The Examiner rejected Claims 1-19 and 27-32 as obvious over Sandhu. The cancellation of claims 1-12 and 27-32 renders this particular ground of rejection moot, at least with respect to those claims. With respect to the remaining claims, these rejections are respectfully traversed.

Independent claims 13 and 17 are directed to methods of making a flat panel display or a field emission device. Claim 13, e.g., specifies a method for making an FED having a central active display area and a surrounding peripheral area. The steps of the method include locally applying the etchant to uncover a structure in the peripheral area of the cathode assembly.

The Office Action admits that Sandhu does not disclose a method that is applicable to an FED having a central active display area and a surrounding peripheral region, with a cathode and anode assembly. The Office Action concludes, nonetheless, that it would have been an obvious matter of design choice to use Sandhu's method to manufacture an FED device.

First, Sandhu does not disclose or in any way relate to manufacturing flat panel displays or field emission devices. Second, there is no disclosure of suggestion for combining the teachings of Sandhu with the background of the present application to arrive at the claimed invention. Sandhu is concerned with the removal of tungsten from integrated circuits having

multi-level interconnects. In contrast, the present invention is not concerned with the removal of tungsten. There is simply no reason provided in the Office Action for why one skilled in the art would consider a process for removing tungsten when manufacturing an FED. Furthermore, the fact that Sandhu's method was disclosed over ten years ago supports Applicant's position that it would not have been obvious to apply such a method to the claimed invention. It is established by the courts that the fact that all the elements of an invention were available for years without suggesting the claimed invention is itself evidence of non-obviousness. See *Panduit Corp. v. Dennison Manufacturing Co.*, 1 USPQ2d 1593, 1605 (Fed. Cir. 1987). In addition, there is nothing to suggest that the technique disclosed by Sandhu can be applied to an FED, having greatly reduced feature sizes compared to the device of Sandhu, with a reasonable expectation of success.

Applicant therefore respectfully submits that independent claims 13 and 17 are patentable over the art of record.

Claims 14-16, 18, and 19 depend from independent claims 13 and 17 and are therefore believed allowable for at least the reasons set forth above with respect to claims 13 and 17. In addition, these claims each introduce novel elements that independently render them patentable over the art of record.

For the reasons stated above, it is respectfully submitted that the application and all of the pending claims (13-26) are now in condition for allowance. Accordingly, the issuance of a Notice of Allowance is respectfully requested.


Application Serial No. 09/775,920
Amendment dated May 7, 2004
Reply to Office Action dated January 7, 2004

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees, which may be required for this Amendment, or credit any overpayment to deposit account no. 08-0219.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to deposit account no. 08-0219.

Respectfully submitted,


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Attachment: Replacement Drawing for Fig. 4